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## Concerning This Issue...

Imagine large lush flowers in rich reds, pinks, purples, oranges, rusts, yellows, and blues. The surrounding dense foliage is shaded green, blue-green, and gray. Some stems are intertwined, waving in the slight wind.

A tropical scene? Perhaps. But here you're witnessing the surprising opportunities that await you when selecting low-water and drought-resistant plants for your garden. Several articles in this issue are sure to help.

First, landscape architect Michael Lee leads you through an imaginary landscape remodel—from stoic traditional yard through water-wise garden, based on natural principles. Then thirteen experienced gardeners share their tips on what *they* do to have successful low-water gardens. Valerie Easton interviewed these creative souls to excite you with the many possibilities of the dry gardening challenge.

Almost each year around September, I detour onto the University of Washington campus to admire the deep magenta blossoms of the crape myrtle in the Medicinal Herb Garden, easily visible from Stevens Way. Under the right conditions of heat and drought, the beauty of crape myrtles can be yours, too, as David Hamilton's article suggests.

The transition area between your pond (with re-circulating pump) and its shore can look more natural. Landscape designer Lynn Sonneman offers many planting suggestions for the water oasis, which is possible in our dry summer climate—a reminder that the water features in the Washington Park Arboretum could use some tender renovation.

A wide variety of color and flower also can be established with hydrangeas. Although they need measures to conserve moisture, hydrangeas are worth looking into, specialist Keith Howe asserts. Has anyone seen 'Vulcan', a compact dwarf hydrangea with brilliant orange flowers that Keith has tried to re-find for years?

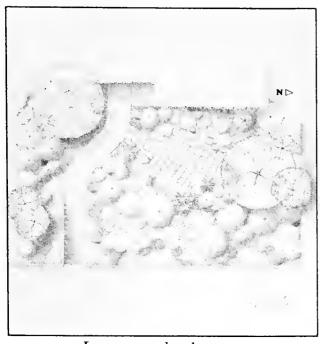
"You're not stretching yourself as a gardener if you're not killing plants," southern plantsman J.C. Raulston was quoted as saying on National Public Radio. Dan Hinkley tells you about the favorite tender plants that he sometimes loses, but which offer beauty during whatever-length reign in his garden. Perhaps you, too, can experiment with hardening favorites to turn "Beautiful Losers" into beautiful winners. The Washington Park Arboretum certainly has experimented with such plants. One of Dan Hinkley's favorites is mentioned in Tim Hohn's quarterly update, "In the Washington Park Arboretum."

Each year we rotate board members. This year we thank holly expert Virginia Morell, a long-time Arboretum Foundation member, who cycles off after providing a link with the needs of Foundation members. Harold Tukey's sabbatical takes him off the board, and we thank him for his writing, critiquing, and for being a connection to the University of Washington Center for Urban Horticulture. Also, Seattle City Arborist Jerry Clark finishes his term, and we hope to hear from Jerry soon on his activities with street tree planting.

In 1990, nationally acclaimed poet Pamela Gross was inspired to write "Moon Viewing Ceremony" after witnessing one in the Japanese Garden (fall/winter 1991/92 Seattle Review). It's appropriate to quote her in light of Valerie Easton's article on horticulture in literature and because of the fat koi in Lynn Sonneman's article: "... Slowly, the moon's full sister, summoned out of her deep home among the waxy, moon-sided carp, steers a firm course through the unsettled constellations."

We hope this issue helps you steer a firm course through your home landscape and in the Washington Park Arboretum.

Jan Silver, Editor The Washington Park Arboretum Bulletin



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In Bulletin articles, an asterisk (\*) indicates species, including varieties and/or forms, that can be found in the Washington Park Arboretum; a dagger (†) indicates specimens in the public collections of the University of Washington's Center for Urban Horticulture.

Cover: Lavatera thuringiaca 'Barnsley' is a pink beauty that thrives on low or no water in sandy or loamy soil. This specimen, in Susie Marglin's Medina garden, bloomed from May to October in 1991, and has grown over six feet since planted a year ago. Photo courtesy of David McDonald, (206) 763-2243.

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The mission of the Arboretum Foundation is to ensure stewardship for the Washington Park Arboretum, a Pacific Northwest treasure, and to provide horticultural leadership for the region. This stewardship requires effective leadership, stable funding, and broad public support.

Articles on gardening and horticulturally related subjects are welcome. Please call the *Bulletin* for guidelines. For permission to reprint any part of the *Arboretum Bulletin*, please contact the Arboretum Foundation for written permission. © 1992 The Arboretum Foundation.

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For information about the activities of The Arboretum Foundation, call (206) 325-4510. Members of The Foundation receive four issues of the *Bulletin*, 11 issues of the newsletter, plant sale catalogs, discounts, and early notice of programs and special events.

To join: Individuals, \$15; Families, businesses, and organizations, \$20. Send payment to The Arboretum Foundation, University of Washington XD-10, Seattle, WA 98195.

## Save Water by Planting with Nature

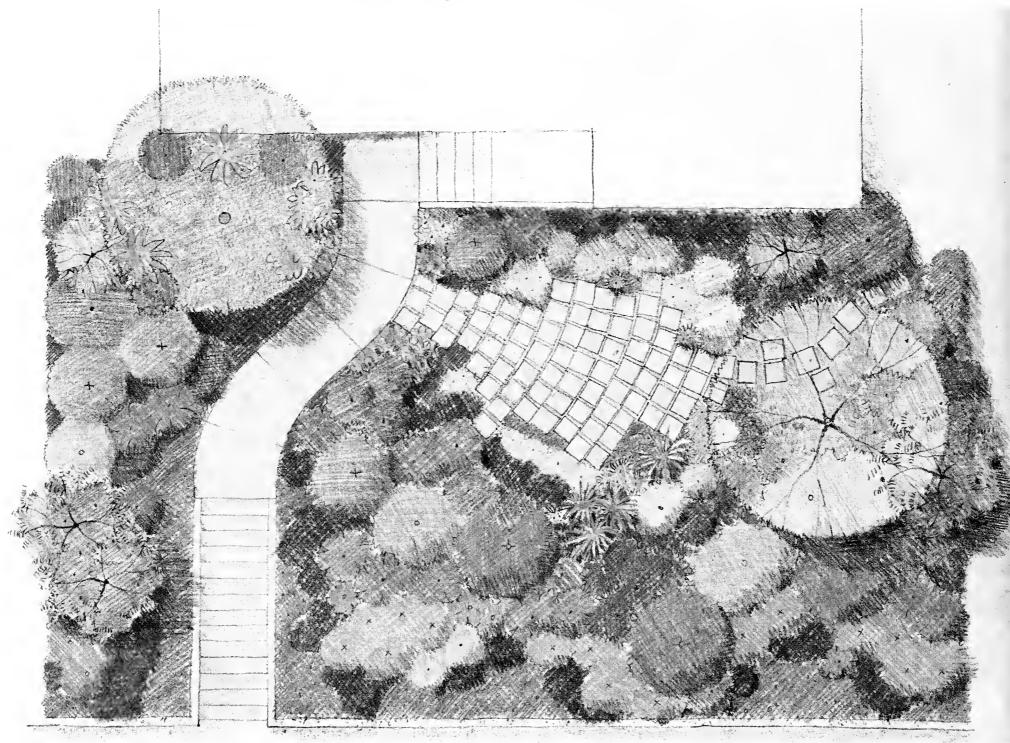
#### by Michael Lee

A landscape architect shows how drought-tolerant plants are selected and used to add variety and save water in the home landscape.

Saving water and work in the landscape is easier when we take some cues from nature. The wild vegetation around us flourishes without help because it has taken form under a set of natural rules. Among these are:

- 1. Wild plants are adapted to the climate. Some may be nipped by a rare freeze or wilted in the worst droughts, but they will survive and flourish.
- 2. Plants grow only in suitable habitats. Those needing water grow around streams or wetlands; those needing shade take the forest floor. A shade plant sprouting on an open hillside will likely fail, relinquishing its spot to plants that want sun.
- 3. Plants grow as densely as the climate will allow. Bare soil is little known except in arid regions. Holes in the vegetation are quickly filled.
- 4. Vegetation communities are usually rich and varied. In healthy ecosystems, variety is of the essence. Only exceptional habitats are occupied by only one or two species.
- 5. Plant communities evolve. Fires, floods, slides, and the natural filling of lakes all set in motion a succession of changes in the vegetation. There is a time and place for each plant in this slow pageant, as brightness passes to woodland shade.

The author's design of a water-saving landscape.



Michael Lee



A yard needing a remodel along natural principles, above.

Plantings based on these precepts can be nearly as carefree as those of nature. The idea is to emulate nature in concept, setting in motion a dynamic community of compatible plants. Natives should be featured whenever practical. But any plant that can follow our rules is welcome; most landscapes draw on adaptable plants from many regions.

Our strategy does not ignore aesthetics. We may take great liberties with color, form, and texture as long as we keep nature's principles in mind. No literal re-creations of the wild are needed, nor are they very successful in the built environment. As with any new plantings, when first setting up such landscapes, the soil must be amended with organic matter and watered until established.

#### Remodeling to Work with Nature

Now, suppose we have a failed landscape to remodel. It is one of those typical front yards with a steep bank of weedy grass—hazardous to mow, wasteful of water, a visual and ecological void. Several old shrubs are dotted artlessly across the front wall of the house. A view of the mountains is marred by cars parked on the street.

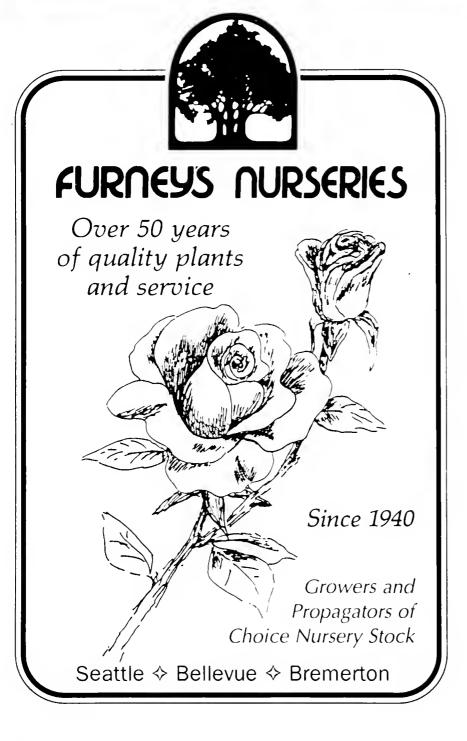
Once we have removed the sod, we can take care of preliminaries. We've decided to build a small terrace of pavers set in sand on the level area near the porch. Next, we will work several inches of composted sawdust into the tired soil to retain moisture and give the smaller plants a quicker start. Finally, we have removed the rhododendrons to irrigated environs elsewhere and rescued the corner window by turning the Portugal laurel, \*Prunus lusitanica, into a high-crowned tree. On the other corner, the boxwood, \*Buxus sempervirens, is as drought hardy as the laurel and can remain.

The planting scheme follows the natural rules stated earlier. The plants are all adapted to the climate, especially to our dry summers. Each plant is a logical choice for the specific environment and exposure. Plantings are dense, designed to smother weeds and conserve moisture by filling in solidly in two seasons. There is diversity so that if any of the smaller plants fail, another will fill its place. Finally, the planting can evolve, if the gardener allows, since many of these plants are self-starters.

A tour of the landscape begins at the new terrace. Softly wrapped in an aromatic border of herbs and shrubs from sunny places, the tiny nook enjoys glimpses of distant scenery between the taller shrubs near the top of the slope. Anyone







lounging here will be regaled with the scents of rosemary (\*Rosmarinus officinalis), woolly thyme (\*Thymus ssp. pseudolanuginosus), creeping thyme (\*Thymus praecox var. arcticus), sage (\*Salvia officinalis), lavender (\*Lavandula angustifolia), santolina (Santolina chamaecyparissus and \*S. virens), and the shrubby evergreen \*Artemesia 'Powis Castle'. First choice for a trellis along the house wall is \*Rosa brunonii 'La Mortola' with pale evergreen foliage and red spines complementing its fragrant flowers of creamy white. The native evergreen honeysuckle, Lonicera hispidula, giving dainty sprays of yellow flowers for months, also would work.

The herbs, the pinks (\*Dianthus spp.), and the \*Senecio 'Sunshine' repeat various tones of gray foliage that show against the darker greens of Cotoneaster 'Coral Beauty' and \*Viburnum tinus, and against the shadows of background plants. More shadows are cast by a small tree to the north; we've chosen a magenta-flowered Judas tree (\*Cercis siliquastrum), but a 'Desert King' fig tree, Ficus carica, would be handsome and fruitful. In the dappled shade beneath, a ground cover of \*Fragaria chiloensis, the native evergreen strawberry, rambles through groups of flowering perennials—a native red columbine, \*Aquilegia formosa; coral bells, \*Heuchera sanguinea; wine-leaved \*H. 'Palace Purple'; and the stately cream-colored spikes of Campanula lacti*flora*, which may need some watering.

Our little flower meadow is backed by sturdy evergreens. The accommodating wax myrtle, \*Myrica californica of our coast; the Oregon grape, \*Mahonia aquifolium; and the Mediterranean strawberry tree, \*Arbutus unedo, knit together in a tall screen accented by the lithe grayish sprays of \*Cotoneaster franchettii, which, like the lower C. 'Coral Beauty', offers vermillion berries to the birds. Native flowering currants, \*Ribes sanguineum, enliven the shady corner in early spring with their beloved watermelon blooms in pendant clusters. On the slope, the smooth sumac, \*Rhus glabra, contributes bold texture and neon fall color.

At the west corner of the terrace, angel's fishing rod, \*Dierama pulcherrima, arches its thin wands of rosy bells over yard-high clumps of grassy foliage, joining sea thrift Armeria maritima and evergreen Iris douglasiana for spiky foliage. To the south, the terrace entry is framed by more \*Viburnum tinus and the evergreen huckleberry,

\* Vaccinium ovatum, from our dry coastal woodlands. Woolly thyme growing between the pavers gives a fragrant welcome to passing feet.

The lush crown on the Portugal laurel invites a gathering of native shade lovers. Here salal, \*Gaultheria shallon, and the low Oregon grape, \*Mahonia nervosa, join evergreen strawberry in a sparkling carpet around evergreen huckleberry and sword fern, \*Polystichum munitum. The strawberry flows northward around the bold foliage of \*Bergenia crassifolia and winter-blooming Helleborus foetidus. These join a \*Camellia sasanqua espaliered on the wall to enunciate the entrance and bring color to the darker months.

Most of the slope is crowded with fast-spreading shrubs and ground covers. Along the stairway spills a cascade of pinks as well as California poppy, *Eschscholzia californica*, and native penstemons, of which *Penstemon barrettiae* and *P. cardwellii*, with lavender flowers over mats of bluish foliage, are about the best. Behind these is *Cotoneaster* 'Coral Beauty' stepping up to taller rock roses, \**Cistus laurifolius* in white, *C. x skanbergii* in shrimp pink, *C. parvifolius* in magenta; summer-blooming Corsican heath, \**Erica terminalis*; \**Cotoneaster buxifolius* for a touch of bluish gray, and more Oregon grape. Sparkling streamers of kinnikinnik, \**Arctostaphylos uvaursi*, tumble over the wall.

By some standards this garden is a crowded jumble. But the clean austerity of much modern landscape design, although sometimes creating great art, often short changes both the biological community and the horticultural soul. Our garden is a diverse, figurative microcosm of nature. Plants will spread and mingle here and some will seed themselves. They will crowd out weeds and provide food and shelter for animals and humans while asking for only occasional water and little attention. The garden will be alive with seasonal drama and year-by-year change. Unified by repeated textures and colors, it should be as restful as it is stimulating.

Michael Lee is a landscape architect working in Seattle.

Plants named in this article that are in the Washington Park Arboretum are indicated by an asterisk (\*).

To find them in the Arboretum, consult Woody
Plants in the University of Washington Arboretum,
Washington Park compiled by Brian O. Mulligan
(1977), which can be found at the Graham Visitors
Center on Arboretum Drive East.





## New Visions for Drought

#### by Valerie Easton

e've all read and heard enough rules and regulations, instructions, and lamentations about the Seattle area's drought "crisis." But is it a crisis—or an opportunity? Many local home gardeners and professionals embrace the concept of gardening in harmony with our natural weather patterns and find beauty in plantings that need less water. Following are some of these favorite ideas, strategies, and plants for a changed vision of Northwest gardening.



Lilium washingtonianum

Mary Robson, Master Gardener Coordinator for Washington State University/King County Cooperative Extension, is a Bulletin board member.

Mary Robson's small urban garden is filled with a mix of shrubs, bulbs, perennials, and small trees. She has worked for the last three years to make her garden more drought tolerant by carefully choosing plants and using water-saving strategies.

Mary has only watered one day a month over the last several summers because her plants grow in soil amended with organic matter to a depth of eighteen inches. She runs leaky pipe hoses about a foot apart, buried three inches deep in mulch, through her shrubs, perennials, and vegetables. She also groups plants by zone according to water usage (e.g., rhododendrons together in the shade). If you want to transplant in this manner, wait for the appropriate time of year.

"I'm surprised by how pleased I've been aesthetically with plants I've chosen for their drought tolerance," says Mary. Her garden is spectacular in the spring, as she emphasizes blooms such as iris, poppies, and lilacs. Because the bulbs that she is so fond of bloom in the spring and go dormant in the summer, they need minimal water. Other favorite plants are \*buddleias,

\*lilies, and \*yews of various kinds.

Mary describes her garden as going into a "green foliar dormancy" in summer, when she enjoys its cool leafiness, with color in accent plants and containers. To achieve this, she is willing to experiment and happily relinquishes plants that can't make it on this low water regime.

Mary suggests publication KC125 on low water-use plants, available free by calling King County Extension Service, (206) 296-3986. As you choose new plants for your garden, this will help to make sure that once a plant is established it can live without supplementary water.

## George Waters is the editor of Pacific Horticulture.

California has suffered water shortages since the mid-1970s. "California politics is water," George Waters commented, an observation to consider for this region as our Puget Sound population continues to increase rapidly and the lack of water resources becomes an issue.

George sees the water shortage as resulting in increased appreciation of California natives and their conservation, which he feels is a positive reaction to droughty conditions. After nearly two decades, he emphasized that drought is becoming recognized as a permanent condition gardeners need to deal with, rather than a periodic crisis.



Waters applauds the trend that turf grasses in home gardens are finally being reduced in space or eliminated, and that some golf courses experiment with using gray water or well water. In his own small urban garden, George grows a variety of California natives and Mediterranean plants that do perfectly well without irrigation. Two of his

favorites are \*Garrya elliptica and the western native iris that he's loved ever since growing them years ago in England.



#### Walt Bubelis is department head, Horticulture, Edmonds Community College.

Although Walt Bubelis has his favorite drought-tolerant plants, he echoes other low-water gardeners when he emphasizes that *all* plants can survive periods of drought much better in properly prepared soil. Walt advises aerating the soil so that plant roots can follow water deep into it. Deeply-rooted, well-established plants better survive all kinds of stress, including winter cold, with this preparation. Walt points out that this applies to lawns as well; shallow-rooted lawns need a deep, properly prepared sub-soil to make it through times of drought.

Walt recommends some plants that do particularly well in dry soil, both in his own garden and in commercial settings: \*Myrica californica, a coastal tree that survives both salt spray and bonedry soil; persimmons (Diospyros spp.), a glossyleaved fruiting tree; \*Osmanthus decorus, notable for foliage and fragrance, and \*Viburnum tinus, which he considers to be a true Mediterranean plant.

#### Glenn Withey and Charles Price, Withey-Price Landscape Design, are responsible for designing and planting the new mixed border at Bellevue Botanic Garden, sponsored by the Northwest Perennial Alliance.

Glenn Withey described his own garden as "a traditional English garden," but quickly pointed out the inaccuracy of the description because there are many different kinds of English gardens. For his version, he uses common sense and "goes with nature rather than battling it," by grouping

plants according to water need.

Leaky pipe in beds and borders, covered with a heavy mulch, were used in Glenn's garden. For the lawn, three years ago he and Charles established "water miser" grass seed from Weyerhaeuser, purchased at the local hardware store. It is made up of three different types of fescue, coarse in texture with very deep roots, and stays green all summer with minimal watering (twice during the summer of 1991).

Glenn emphasized that he isn't "a lawn freak" and is much more interested in plants. Two plants that have done particularly well for him in droughty conditions are †Helictotrichon sempervirens (blue oat grass) and \*Phygelius capensis 'African Queen', whose coral tubular bells attract hummingbirds.

Charles Price's garden techniques encourage drought tolerance. He only watered three times in 1991, but each application was very deep and he has heavy, water-retentive clay soil. Although he hand waters new plants, after a year they all get treated in the same way. Charles lets the plants be stressed to force them to send down their roots. Although it would seem that if there are fewer plants in a garden, they would need less water, the opposite is true: Charles crowds plants to prevent the soil from drying out.

Oreganos used in rock gardens, herb gardens, and throughout borders as a small perennial have proven drought tolerant for Charles, as have variegated pelargoniums with scented leaves, which do best when allowed to dry out between waterings.

#### Nota Lucas is Landscape Program Specialist, Conservation Office, Seattle Water Department.

"We are in this for the long haul and need to be serious in our choices today or we'll push ourselves into an untenable situation," Nota Lucas said. She stressed that gardeners have been out of balance with nature and need to accept that this is not just a year-to-year water crisis.

Working in the finance office at the Seattle Water Department years ago, Nota saw that peak water usage increased drastically during the summer months. This led to her interest in working with our natural weather patterns instead of using more water in the summer than nature gives us.

She "loved the exciting challenge of working with low water-use plants," although Nota believes it is unusual for gardeners to deal with a

concept in their gardening because, traditionally, aesthetics and the visual result have been the goal. She strongly feels that to create a drought-resistant garden is a way of responsibly putting a needed concept into practice, and to come back into balance with nature in our gardens.

Philosophy was put into practice when Nota began planting a more drought-resistant garden about three years ago. After watering regularly the first summer, her garden only needed watering once or twice all summer during subsequent years. She is especially pleased with kinnikinnick's glossy and healthy leaves, the lushness of \*Ceanothus gloriosus, and \*Cistus hybridus, all grown without supplementary water.



Susie Marglin, Advertising Director for
The Washington Park Arboretum Bulletin,
is a member of The Arboretum Foundation
Board and the Northwest Perennial Alliance
Drought Tolerant Study Group. She has a
mature two-acre garden on Lake Washington.

"I was interested in drought-tolerant planting before we were *supposed* to be," said Susie Marglin. Having grown up in the San Francisco Bay area and gardened there during the droughts of the 1970s, Susie anticipated the effects the changing weather patterns and burgeoning Puget Sound population would have on our water supplies. Ironically, her water supply will remain plentiful throughout the summer as she has a license to pump water from Lake Washington, issued to her garden decades ago from the Department of Ecology.

Susie's garden, however, already is filled with

many of the drought-tolerant plants she grew in California and missed when she first moved north. She planted them for their "pleasing foliage, smell and color," not just their minimal water requirements. Flaxes, sedums, salvias, lavenders, and poppies fill her garden. Euphorbias and other South African plants, bulbs, and various ornamental grasses also have done well with little water. Susie has cut down on lawn space while increasing the size of patios and borders, and she eliminated her rose garden, only growing a few roses in the border for cutting. She mulches heavily with Cedar Grove Compost which she likes because it looks like soil, and can be dug into the beds.

"A little bit of the survivalist's instinct comes out in you when you hear the word 'drought,'" noted Susie, who saves the water from washing vegetables to water the container plantings, and collects the water that runs while the shower is warming up to use in the re-circulating fountain and dog and cat dishes. Not only does Susie bring her California drought strategies to our current water-use concerns, but she finds drought-tolerant plants so aesthetically pleasing she uses them extensively despite her plentiful and free supply of water.

Jon Hooper is the University of Washington Grounds Supervisor and a former golf course grounds manager. He also is a new board member of The Washington Park Arboretum Bulletin.

The University of Washington campus plantings are divided into climatic zones, with some areas being more drought tolerant. Jon Hooper feels native plantings will be emphasized more in the future, as in the area behind the University of Washington's Parrington Hall where turf has been taken out and a madrona grove reestablished. Plantings around the recently relocated Penthouse Theatre also consist of natives, including \*huckleberry, \*salal and \*kinnikinnick. Jon also envisions the use of more natives around new construction. The number of native plants already on campus keeps the University of Washington within the new City of Seattle guidelines requiring twenty-five percent of all plantings to be "drought tolerant or low water usage plants" (Director's Rule #117-91, effective 4/1/92, available from the Department of Construction and Land Use, City of Seattle).

The University of Washington also is concentrating on more efficient watering of existing



plants, according to Jon. It hopes to save thirty to fifty percent of water usage by installing computerized irrigation control in conjunction with a weather station.

"The perfect lawn grass" has had more demanded of it over the years, said Jon, a former golf course grounds manager. For example, golf used to be played on meadow grasses, and now people demand fairways and greens to be kept clipped to one-quarter or even one-eighth inch. This perfection of golf courses and home gardens is water intensive. Drought-tolerant grasses, such as tall fescue and buffalo grass, are not as aesthetically pleasing; with their wider blades and stiffer look they will never be the picture of manicured perfection. However, they look fine cut to two inches, and even though they might turn brown during a lengthy drought, they won't die. Changing public perception of what a lawn needs to look like to be acceptable is the challenge; alternatives to water-thirsty turfgrass are available.

#### Doug Bailey is a Northwest landscape designer.

"We've gone too long in an artificial bubble of too much fertilizer and water," according to Doug Bailey. The first step is soil preparation, as our compacted glacial soil needs lots of chunky organic matter added for aeration. He suggests applying fertilizer early in the year and giving deep rich watering in March and April, during the active growing season. Doug doesn't fertilize after June and withholds water beginning in August to allow plants to set buds and go dormant (permanent plantings, not vegetables and annuals). The plants he treats this way send down deep roots, and become more drought and cold tolerant.

Doug sees more problems from over-watering and mis-watering than from under-watering. For instance, sprinkler systems that come on for ten minutes each night create plants with "pancake roots," which spread out at the surface and are very water dependent. He suggests re-thinking our traditional Northwest landscape and gardening on a natural cycle in tune with the weather, recognizing that even in April the soils are often quite dry. Rhododendrons and azaleas are "right up there with roses in their greed for water and fertilizer," says Doug, who feels that they are over-used. Although rhododendrons are often thought of as Northwest plants, he says, "Our native rhododendron is not something you'd want by your front door." However, he feels that "we have the most attractive natives in the world," and suggests using \*salal, \*mahonia, and \*native ferns in drought-resistant landscapes, as well as California and Mediterranean natives, silverleaved plants, herbs, and euphorbias.



George Pinyuh is Washington State University Extension Agent for King and Pierce Counties, Washington State.

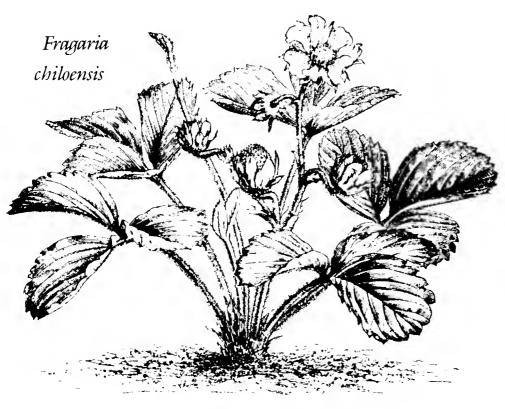
"The fact of the matter is that this place is bone dry in the summer and it doesn't rain here all the time," George Pinyuh realized after arriving in the Northwest sixteen years ago. Since then, George has worked on making his own landscape drought tolerant. For years he has experimented with woody plants, particularly his favorite broadleaved evergreens, to determine their water needs.

Two water-conserving strategies in the Pinyuh garden include siting plants correctly and mulching with wood chips that are available free from arborists. He uses them at a depth of three to six inches, depending on the plant.

"You can't go wrong with West Coast native trees," George suggests, and he has been pleased with the performance of the golden chinquapin (\*Castanopsis chrysolepis), a small chestnut relative native to Washington; \*Arbutus menziesii (madrona); and \*Lithocarpus densiflorus (tanbark oak), which has fragrant white flowers like a chestnut and fruit like an oak. Other favorites are \*Quercus chrysolepis (canyon live oak), \*Quercus hypoleucoides (a silver-leaved oak from the mountains of Arizona); and the native western azalea and its hybrids. Although he doesn't plant rhododendrons anymore, George has found Rhododendron occidentale 'Irene Kister' to be fragrant and drought tolerant, and recommends making more use of our native rhododendron, \*Rhododendron macrophyllum, which comes in a very pretty white form.

## Cisco Morris is Manager for Grounds and Landscape at Seattle University.

When Cisco Morris began about six years ago to use drought-tolerant plantings on the grounds of Seattle University, he selected those that were attractive and could out-compete the weeds. Now, the low maintenance hillside plantings need minimal or no water.



"No plant is drought tolerant until established," Cisco pointed out. "It usually takes them one season to set deep roots and develop their defenses." He first amended areas of sandy soil (not just the planting holes) with at least one-third organic material, and now doesn't need to water the plantings in heavy soils at all; the more sandy beds are watered only once or twice a summer.

For low ground covers, Cisco has been pleased with the performance of \*Rubus tricolor, which is aggressive and grows quickly into a thick mat, and \*Fragaria chiloensis. He favors taller plants that reach at least three feet to shade out aggressive weeds. Cistus corbariensis, the white rockrose whose blossoms have yellow centers, and Cistus x purpureus that blooms from mid-May to mid-July, have flourished with no irrigation. Other plants that have done well with such a low-maintenance regime are the \*rugosa roses, \*Cotoneaster lacteus, \*Japanese barberries, and the native \*Spirea douglasii.

# Mary Booth, landscape architect, is a member of The Arboretum Foundation and a former member of the editorial board of The Washington Park Arboretum Bulletin.

Mary Booth's Hood Canal garden is at the absolute northwest tip of the Kitsap Peninsula, on the edge of the rain shadow. She has been working for several years to develop drought-tolerant plantings over about two acres. The property is "such a native site" that as Mary clears it she leaves most natives, even ocean spray.

Mary uses a strategy rather than working from a specific plant list. "Within two hose lengths" of the house, the area receives water; beyond that she doesn't irrigate once plants are established. Mary describes her experiments as very "trial and error": "The plants either make it or they don't." To help them along, she prepares the soil very carefully, digging it well and adding amendments, and leaving a basin in the soil around new plants to catch water. She weeds carefully and trims plants in the spring, and then they're on their own.

In an area heavily shaded by fir trees, Mary has established a screen of Portugal laurel (\*Prunus lusitanica) which has done beautifully in extreme dry shade. \*Salal, red currant, and snowberry all have thrived with no watering. She also grows gold-leaved feverfew (\*Chrysanthemum parthenium) which does wonderfully with no water.

"Invasiveness becomes less of an issue than survival under severe conditions," Mary noted, and in that light she feels that we need to reconsider some of these more common plants.

Dan Boroff is a residential landscape designer and contractor. He is the coordinator and designer of the Northwest Perennial Alliance low water use borders at the Good Shepherd Center in Wallingford.

According to Dan Boroff, we can enjoy the way the garden looks with the climate we have, including a golden lawn area in late summer and fall. He plans for the future, and not just this immediate crisis, by preparing soil, installing efficient irrigation, and using more drought-tolerant plantings. To help with plant choices, the Northwest Perennial Alliance Drought Tolerant Study Group is preparing a list of over one thousand low water use plants for our area, which should be completed by the end of 1992, and will be made available to nurseries and the public.

In his own garden, Dan uses wood chips and slow-release fertilizer containing micro-nutrients, which he digs eighteen inches deep into the sandy soil. This provides an environment for beneficial soil organisms to develop, and the resulting microbial activity occurring in the lower level of the soil around the deeper plant roots produces healthy plants, he explained.

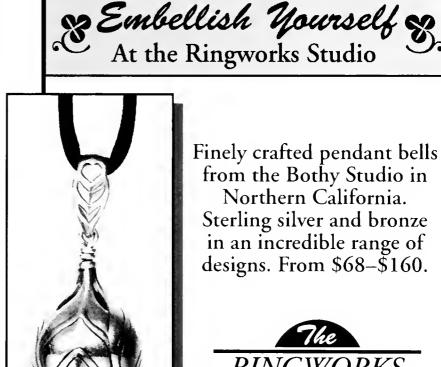
In addition, Dan mulches with chunky organic matter (not peat moss which is too fine and mats down) which allows water to penetrate. He takes advantage of wood chunks that are available free from arborists to mulch and maintain air space at the soil level. Dan waters with a cheap soaker hose on the surface of the soil, but points out that drip systems are very efficient and can be retro-fitted onto existing water systems. Watering strategy is also important, and Dan advises that "If plants wilt in the afternoon heat, that's okay, but if they've wilted before noon, you had better give them some water."

Drought-tolerant plants that Dan enjoys in his own garden include Salvia pratensis 'Baumgartenii', which is evergreen, with lovely dark silvery leaves; most of the euphorbias; Pacific Coast hybrid iris; and newly introduced sedums with purple and blue foliage and pink and white flowers. \*Rosa glauca and some of the \*rugosa roses look wonderful with little water, as do Dierama pendulum, D. pulcherrimum, and Homeria ochroleuca, a long blooming South African bulb which Dan describes as 'yellow with a nice amber cast.'

Valerie Easton gardens in north Seattle.







'Crocus Bell'



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## The Crape Myrtle— A Summer Prize from China

#### by Dave Hamilton

Sun, heat and infrequent waterings work well for this beautiful, under-used tree.

As we head into the months of high summer—July, August, and September—a major gap in landscaping planning in the Puget Sound region becomes glaringly apparent. Our gardens tend to be heavily front loaded toward spring-blooming trees and shrubs, causing relative exclusion of those that come into their own later in the growing season.

Numerous worthy candidates for high summer, neglected to one degree or another, can fill the unfortunate void in the landscape. Those that come to mind are: \*Albizia spp. (silk trees), \*evergreen magnolias, \*x Chitalpa tashkentensis, \*Eucryphia, \*Dendromecon (bush poppy), the hardier cultivars of Nerium oleander (oleander), \*Hibiscus syriacus cultivars, Chilopsis linearis (desert willow), \*Lavatera spp., and \*Punica granatam (pomegranates).

The subject at hand also is much overlooked and neglected: Crape myrtle, with its beautiful leaf, bark, and bloom.

The crape myrtles of cultivation are a group of deciduous trees and shrubs that are cultivars and hybrids of the genus *Lagerstroemia*, originally from China and Korea and first introduced in 1747 (Dirr 1983). These are mostly cultivars of the species \*L. indica, but many of the newer named varieties are derived from crosses with the species fauriei, as well.

#### Culture and Habit

Although the crape myrtle responds well to reasonably fertile well-drained soil, I have not found it to be inordinately fussy in this regard. It is tolerant of a wide range of soils with only this amendment—really heavy soils need breaking up and amending before planting. Also, once established, the crape myrtle is quite frugal in its water requirements—somewhat surprising given its penchant for warm and sunny locations in the garden. Infrequent but deep waterings appear to

suit it just fine; a moderate amount of fertilizer during the growing season keeps it growing well. I use rose fertilizer or any basic water soluble 20-20-20 or 15-15-15 mixture. In my experience, the tree as a whole, especially the foliage, always has been free of disease or insect infestation of any kind.

The crape myrtle is very amenable to pruning during the dormant season. If left to its own devices, it will develop into a vase-shaped multitrunked or low-branching large shrub or small tree in the 15 to 25 foot range. The bulk of its foliage is on the upper third or so of the plant and its slender, smooth-barked stems show below. The bark is gray to light brown and peels in shreds and strips (giving it the "crape" appellation) to reveal a pinkish inner bark that is one of its most attractive features.

The crisp shiny green leaves are one to two inches long and three quarters to one inch broad. These are frequently tinged red or bronze in the new growth and then, in Fall, turn shades of yellow, orange or red, depending upon variety and weather.

The form, foliage, and nature of the plant is quite pleasing in all respects, but the crape myrtle's real glory is its spectacular display of crinkly flowers produced in a frothy profusion of terminal clusters reminiscent of a lilac in form. Colors range in various shades of red, pink, purple, and white. In our region, these can be expected to appear in August and September during hot summers and can continue into Fall as long as the weather remains warm. Often the leaves will begin to turn color as the last blossoms fade on the branches.

#### **Cultivars**

The widespread use of crape myrtle worldwide has resulted in a plethora of cultivars. The recent work of the National Arboretum in Washington, D.C., has produced a superior series of cultivars named after Native American tribes; they are the most readily available in the nurseries of the West. I highly recommend using them because they are quite superior in adaptability and performance in our area.

Some of the cultivars from the National Arboretum group that are likely to turn up in the Puget Sound region include: 'Catawba' (purple), 'Cherokee' (red), \*'Muscogee' (red), \*'Natchez' (white), 'Seminole' (medium pink), 'Tuscarora' (coral pink), and 'Zuni' (lavender). There is also a



Lagerstroemia indica 'Zuni'

series of small growing cultivars found in the petite strain, such as 'Petite Orchid' and 'Petite Red Imp'. One of the older cultivars that may be found in nurseries is 'Watermelon Red', an old standby that, in my estimation, has been surpassed by the newer crape myrtles on the market.

#### In the Landscape

The crape myrtle still remains an unusual sight in Seattle, but specimens can be spotted here and there around town. There was one rather peripatetic specimen in the Washington Park Arboretum that has been moved here and there; it presently is located in the southeast corner of the University of Washington Center for Urban Horticulture where it appears to be flourishing. There are also fine examples to be found at the corner of 9th and James St. near downtown Seattle; Corliss Avenue N. and N. 36th St., just above Lake Union; and south of the Flag Pavilion at Seattle Center. An especially impressive tree grows in the Medicinal Herb Garden at the University of Washington; it can be located east of Garfield Lane and north of Stevens Way.

The crape myrtle works well as a specimen, in a group or in a row as a deciduous, open-growing hedge or screen. It combines well with sun-loving evergreens, such as \*Raphiolepsis spp., \*Cistus spp. (rockroses), or Choisya, used as an underplanting. Low plantings or ground covers allow the crape myrtle's attractive trunk to show to an advantage. If pruned heavily and kept as a shrub, they are, perhaps, best on their own or with spring bulbs and low-growing annuals of a compatible color. Crape myrtles are also excellent as lawn specimens and would make good street trees, being of moderate size and proportions.

The obvious lack of crape myrtles in the landscape remains puzzling, but can be ascribed to more than the usual neglect of a late-blooming plant. It has been much maligned in the Northwest for its unabashed revelling in the summer sun, a characteristic that has given rise to the myth that it is not a suitable plant for these parts. The fact is that the crape myrtle does indeed like the sun and heat. It is well suited to those south and west walls where we presently enjoy frying rhododendrons. There is usually enough sun and

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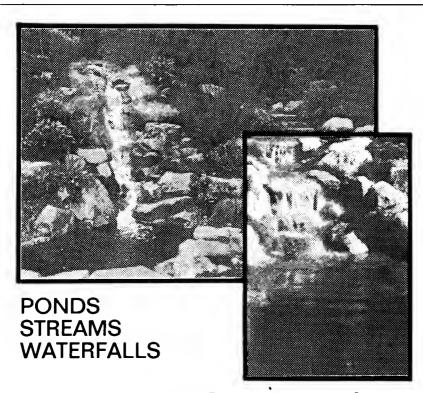
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warmth in a typical Seattle summer to keep a crape myrtle happy, yet one would be advised to keep in mind that it does reward placement with an eye to maximum heat accumulation; there is not likely to be a position in the landscape that is too hot for it!

The crape myrtle is very deserving of much more extensive use in the gardens and public areas of the region. Crape myrtle's growth, attractive bark, winter silhouette, fresh summer foliage, and autumn color make its festive summer display of flowers an additional bonus on a plant that is able to hold its own in a landscape all year around.

The Center for Urban Horticulture (CUH)/
Washington Park Arboretum is conducting an
extensive evaluation of crape myrtle bloom time and
quality. The report will be available in the
Elisabeth C. Miller Library when completed.

Dave Hamilton is a Washington State native who has been immersed in the joys of horticulture as a hobby from an early age. Presently, Dave resides in the Madison Park neighborhood of Seattle. His primary mission involves expanding gardeners' awareness of many plants suitable to the Puget Sound area and its many microclimates.

#### Reference

Dirr, Michael. 1975. Revised 1983. Manual of Woody Landscape Plants. Champaign, IL.: Stipes Publishing Company.

## Sources of Crape Myrtle in the Northwest

Washington

**Puget Sound** 

Furney's Nursery: Bellevue (206) 747-8282 Bremerton 373-8812

Des Moines 878-8761

Tacoma

Poole's Garden Center (206) 759-3519

Bellevue

Wells Medina Nursery (206) 747-8282

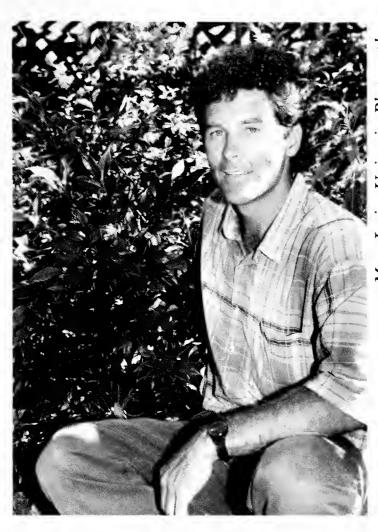
Oregon

Portland Nursery Company (503) 231-5050

Mail Order Sources

Forestfarm, 990 Tetherow Road, Williams, OR 97544-9599. Phone: (503) 846-6963

Greer Gardens, 1280 Goodpasture Island Road, Eugene, OR 97401. Phone: 1-800-548-0111



Witch Hazel Cultivars Collection

The Arboretum will soon be home to a complete reference collection of witch hazel cultivars (Hamamelis species). Although the Arboretum has several interesting witch hazel cultivars, our living collection represents only about one third of those available in the United States and Europe. The decision to obtain a complete reference collection of these beautiful plants was based on their health and hardiness in the Pacific Northwest, the relative paucity of extensive national collections, and the apparently poor state of their documentation. The Arboretum has obtained 12 new cultivars from Gossler Farms Nursery in Oregon, another one from an arboretum in Denmark, and will be looking forward to a dozen or more additional cultivars from Holland and England next year. Unit 45 of The Arboretum Foundation generously funded the acquisition of witch hazels of nursery origin.

#### Some New Accessions

38-92 *Halesia diptera* var. *magniflora* (Styracaceae): a small variety of native silver bell tree with more numerous and larger flowers. Seed received from the International Dendrological Society.

60-92 *Michelia compressa* (Magnoliaceae): a broad-leaved evergreen magnolia relative from Japan as an addition to our single specimen. Wild-collected seed received from the Kyoto University Arboretum.

72-92 *Hamamelis* 'Nina' (Hamamelidaceae hybrid): a hybrid cultivar witch hazel with large, bright yellow blossoms. Scions received from the Royal Agricultural and Veterinary College Arboretum, Denmark.

125-92 Eucalyptus archeri (Myrtaceae): a gum tree of relatively hardy constitution—we hope! Seed was wild collected in Tasmania by a Welsh nurseryman.

#### **Recently Planted Accessions**

345-89 *Bupleurum fruticosum* (Umbelliferae): A broad-leaved evergreen shrub of Mediterranean nativity planted in the rockrose section, grid 21-3E of the Arboretum's new computerized mapping system.

289-84 *Pinus halapensis* var. *eldarica* (Pinaceae): a unique variety of a Mediterranean pine found in a small area of the Caucasus mountains. Planted just south of the Graham Visitors Center along the Broadmoor fence, grid 36-5E.

32-87 *Acer palmatum* 'Katsura' (Aceraceae): a diminutive Japanese maple with light green foliage planted next to the footbridge in the Woodland Garden, grid 32-1E of the new computerized mapping system.

249-89 Olearia macrodonta (Compositae): a bush daisy from New Zealand planted with lots of new accessions alongside the Chilean fire tree, *Embothrium coccineum*, at the south end of Arboretum Drive East, grid 9-4E.

Timothy Hohn is curator of living collections, University of Washington Center for Urban Horticulture and the Washington Park Arboretum.

#### Glossary

**Scion** is a living part of a plant grafted onto suitable stock.

## Hydrangeas in Your Garden

#### Photos and text by Keith Howe

You may view these hydrangeas in the Washington Park Arboretum before selecting a species or cultivar for your garden.



Hydrangea macrophylla 'Saxefloral' in the Arboretum.

Introduction of tract homes, low maintenance landscaping with evergreen shrubs, and the loss of the luxury of a personal gardener. They are not for those who require what are called "trouble-free" plants. This species depends on our care, responds immediately to our skill, and especially rewards those who enjoy the craft of growing fine plants—rather than those who merely own plants that have grown themselves. Even in the smallest and humblest garden, a sturdy hydrangea at once proclaims the place as the abode of a real gardener rather than a mere purchaser of plants to cover the landscape.

The 39 species of Hydrangea are distributed in

eight subsections (McClintock 1957). There are examples of six of the subsections in cultivation at the Washington Park Arboretum. Five of the subsections are located near the top of Rhododendron Glen on either side of Arboretum Drive East. The evergreen climbing *Hydrangea integrifolia*, representing a sixth subsection, is located on Azalea Way, west of Loderi Valley.

#### Some Garden Favorites

Two species of *Hydrangea* are native to the southeastern United States: *Hydrangea arborescens* and *H. quercifolia* (oakleaf hydrangea). The specimens represented in the Washington Park Arboretum are worthy of your attention. *Hydrangea quercifolia* 'Snowflake' and *H. quercifolia* 



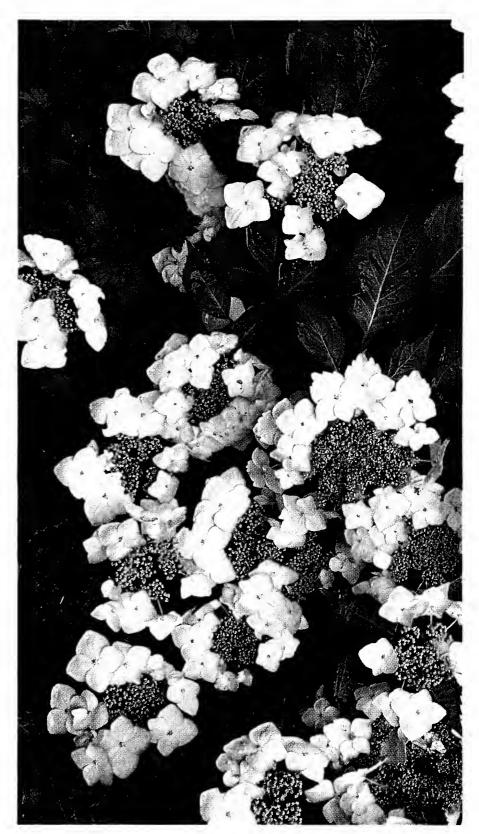


'Harmony', although not in the Arboretum, are two spectacular oakleaf hydrangeas that have larger, fuller flower heads than the type. The flowers of 'Snowflake' appear to be double because of bracts growing upon bracts. These two are available in the trade.

The majority of the remaining species are from eastern Asia and include the big-leaf hydrangea, *Hydrangea macrophylla* ssp. *macrophylla* (Mc-Clintock 1957), which is the common garden variety hydrangea commonly known as Hortensia. *Hydrangea macrophylla* fills an important niche in the garden from early July until frost with a full spectrum of blues, pinks, and white.

Twenty-eight varieties of *Hydrangea macro*phylla and *Hydrangea serrata* from the subsection

Hydrangea macrophylla 'Hamburg', a shade plant (u.l.). Hydrangea macrophylla 'Goliath' (l.l.). Below is H. macrophylla 'White Wave'.



Macrophyllae were planted in the Arboretum between 1948 and 1971. Only half remain and some of their identifications are in doubt. This is due in part to lost identification tags or fallen tags placed on the wrong plant. Some were mislabeled at the nursery. Other hybrids are difficult to identify because they are the chameleons of the plant world and display a great range of color due to soil conditions. Therefore, unless two plants are grown in soil containing the same amount of aluminum and have identical soil pH, it is difficult to recognize them as the same plant. The color of the *H. macrophylla* inflorescences also changes with maturity, and the change is different for a plant grown in shade and one grown in sunlight. Florets that age in shade typically turn to shades

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of green, whereas those grown in sun acquire rose or red highlights.

Three cultivars of *Hydrangea macrophylla* that I am particularly fond of are 'Marechal Foch', 'Mme. E. Moullière' (also known as Jean Gardner's hydrangea after the long-time Arboretum Foundation member), and 'Lanarth White'. 'Marechal Foch' makes a brilliant statement with its vivid, deep, Gentian blue inflorescences. 'Mme. E. Moullière', which I consider to be the best white Hortensia hydrangea, has vigorous tall growth with white serrated sepals and a blue or pink eye, depending upon the soil's pH.

Any or all of these specimens planted amongst your rhododendrons and azaleas will greatly extend the period that you have color in your garden. The color and texture of the hydrangea leaves also provide a pleasant contrast to the glossy leaves and vibrant trusses of the rhododendrons. The white 'Mme. E. Moullière' not only creates the illusion of the other colors in the garden being more vivid, but also provides a visual

#### Glossary

**Bract** is a leaf-like or petal-like organ beneath the true flower.

Clone is a group of identical plants that were vegetatively propagated from a single plant or plant part.

**Coppice** means to cut a plant off near the ground to induce sprouts or root suckers.

**Florets** are small flowers forming the head of a composite inflorescence.

**Inflorescence** is the flower cluster of a plant. **Leader** is the central, upward-growing stem of a single-trunked tree or shrub.

Node is the stem joint bearing a bud or leaf.

Panicle is a loosely branched flower cluster.

Sepal is one unit of the calyx (outermost whorl of the flower parts).

**Soil pH** is a measure of soil acidity or alkalinity in which a value of 7 is neutral, less than 7 is acidic, and greater than 7 is alkaline.

**Subsection** is a division of taxonomic classification, representing the subdividing of a large genus or family.

**Taxonomy** is a method of classifying plants. **Truss** is a flower cluster.

Type variety indicates the variety of the plant upon which the description was first based.

Vegetative propagation is the propagation of plants from vegetative parts, often stem cuttings or root divisions.

resting place for the eye in among many colors.

The climbing hydrangea (Hydrangea anomala ssp. petiolaris) is one of the few vining flowering shade plants. It provides cascades of white inflorescences in late June to late July, often climbing 60 to 80 feet. The outer flowers are white and showy and the inner flowers dull white; the plant is attractive with a sweet fragrance and the overall flower effect is magnificent. Several Douglas-fir near Rhododendron Glen are clothed with H. anomala ssp. petiolaris and when in bloom they provide towering white columns framing the glen below.

Hydrangea aspera is represented in the Arboretum by H. aspera 'Robusta' (small leafed) and H. aspera 'Sargentiana' (large leafed). The leaves, stems, and inflorescences are bristly and, even if the plants never flowered, would be of great interest. They do flower, however, in July and August with a mixture of pinkish-white sterile florets and deep rose-lilac fertile flowers. The bark of the small-leafed H. aspera will peel like that of \*Acer griseum, presenting a wonderful contrast in texture and color.

The final species to emphasize is *Hydrangea heteromalla*, a many-branched shrub or small tree. The three specimens in the Arboretum are 15 to 25 feet tall and when in flower appear to be giant white poinsettias.

#### Culture .

To be grown really well outdoors, hydrangeas require a loamy soil in a reasonably mild zone. Their native soil is acid, although they will grow in one that is more neutral than our Northwest soil (pH 5 to 6). The ideal climate for them is one in which either nearness to the sea coast or low elevation ensures comparative freedom from early autumn and late spring frosts. This is because the hydrangea shares with other first-class shrubs, such as the rose and the tree peony, that fatally sanguine disposition that leads them to open their buds too early, often at the first mild spell in late winter, and then to keep on growing too late in the season. Apart from this failing, the hydrangea is quite hardy enough for open-air culture in the Puget Sound basin.

Most of the species grow as understory shrubs or vines and thus are well suited to full or partial shade. The large-leaf hydrangea grows in full exposure to the sun in Japan. But during July, when it begins to bloom, it is rainy and overcast there, thus preserving the delicate colors of the flowers.

The oakleaf hydrangea, however, needs full exposure in order to develop its brilliant fall colors.

Hydrangeas are very thirsty plants, and in order to avoid excessive watering where the soil is not naturally moist, you need to alter matters so that it becomes so. When first planting, prepare the hole to a depth of several feet when possible. During the first few years, water deeply so that roots do not remain on the surface; it is not uncommon for them to reach a depth of four feet. Mulching also helps to keep the upper layer of the soil moist.

#### Propagation

All hydrangeas come easily from cuttings as well as seed. Seed ripens on most species in December and is easily grown when sown on top of a peat/compost/perlite mix. The seed germinates only in light and will do so in approximately 10 days. Short-term dry storage does not harm its viability.

#### **Pruning**

There are two categories of hydrangeas with respect to pruning—*Hydrangea paniculata* 'Grandiflora' (or PeeGee) and the rest. The rest includes all others with the exception of the vine hydrangeas which generally don't have any special pruning requirements or needs (Everett 1981).

Hydrangea paniculata should be pruned in late winter or early spring; in effect, you cut the plant back to within an inch or two of where last year's growth started. You coppice the plant and by doing so get healthy new growth with large panicles of white flowers. Hydrangea paniculata produces flowers on the current year's growth. In order to have a taller plant, leave the leader three to four feet long and prune back to a node. Then prune back to that same node the following year.

All other upright hydrangeas should be spared any hard pruning for it does more harm than good. Because Hortensia and other upright hydrangeas form their flower buds the year prior to blooming, pruning of shoot tips will only lead to none or, at best, fewer flowers. Almost certainly, if the older wood is cut away after flowering, a mass of soft young shoots is produced that will be winter killed. Thus, a fatal cycle of annual soft growth, killed each winter, is set up and spring pruning is essential to stop it. The *Hydrangea macrophylla* is naturally of rounded, dense habit in a properly open position. Its size varies from one to eight feet in both directions, depending on

the variety, and is ideal for any given space when proper selection is made. Pruning this hydrangea back 18 inches will prevent it from blooming that year and at the same time result in twice as many 18-inch shoots the next year.

Some gardeners admire the persistent flower heads of the hydrangea and value them as part of their winter garden decoration; others object to them and wish to prune them all away in autumn. This is a rather damaging operation. The winter mantle of dry flower heads protects the buds below from the frost. Therefore, in the early spring prune them back to the first node with buds, then use the spent heads not used for display as mulch.

In general, the best pruning method is merely to cut out the three oldest stems at ground level in late winter. A young hydrangea shoot bears a flower at its tip the first year. The next year, two side shoots are made and they flower—and so on and on. When the shoot has made fifteen or twenty flowers in this way, it should be pruned at the base to make more room for younger shoots. Needless to say, cutting young shoots halfway down merely prevents the shrub from flowering. Indeed, no pruning at all of any flowering shrub is better than indiscriminate hacking.

#### Consider the Colorful Hydrangea

Hydrangeas offer much interest in the garden landscape. They provide the garden with a wonderful spectacle of changing colors from early summer until the first frosts. Their flowers can be easily dried and will continue to provide indoor enjoyment during the grayer months of the year.

Keith Howe and his brother operate a wholesale nursery, specializing in hydrangeas, which they sell to the Wells-Medina and Heronswood nurseries.

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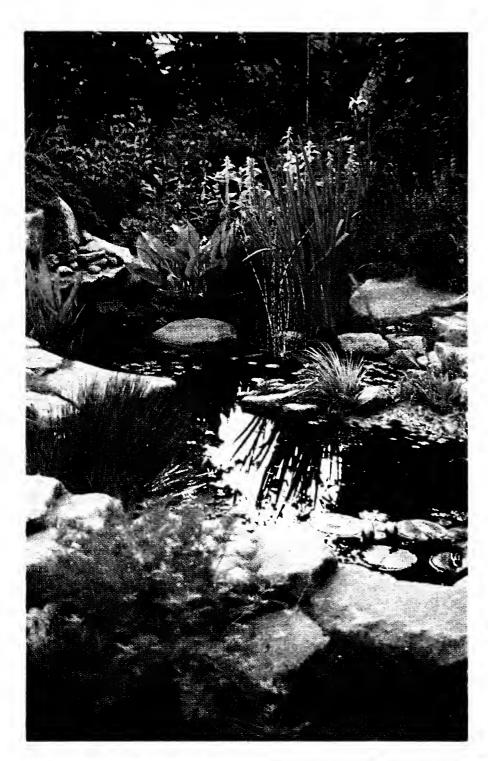
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Zebra rush, an accent plant for ponds

Opposite: a well-planted pond with re-circulating water (u.l.). Clockwise from the left are arrowhead, water plantain, zebra rush backed by blue flag iris, variegated dwarf sweet flag, water lily, and spike rush. Pickerel rush, u.r. Bottom, a koi pond with bog bean trailing lower left, over the water.

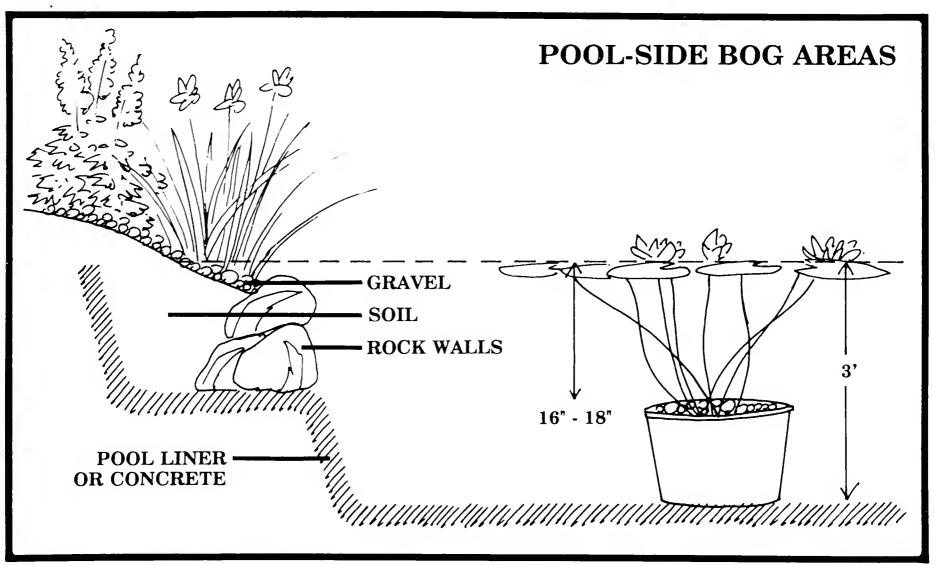
# Plants for the Water's Edge: Creating the Bog Oasis

#### Photos and text by Lynn Sonneman

Attention to the transition area between pond and land will result in a more natural looking shoreline.

ith today's much needed focus on water conservation, many gardeners seem reluctant to explore the beautiful planting schemes possible in the moist environment. Even in a garden devoted to the strictest principles of dry gardening, it is possible to create a lush oasis and still feel good about yourself for not wasting water, while adding a feature that contributes to your garden's ecological balance.

Most urban water features that I have seen incorporate recirculating systems (pump and/or filter) that keep the water properly aerated and clean. However, little, if any, attention is paid to including marginal wetland planting areas in or around the actual pond. As a result, most ponds tend to look somewhat unnatural, being merely



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an expanse of water, often with concrete edges. surrounded by plants that would not normally occur in a moist situation. In planning a future pond

#### Glossary

**Inflorescence** is the flower cluster of a plant.

Umbel is a flower stalk or cluster growing in a circle from a joint on a stem or trunk.

or improving an existing one, it is important to consider what can be done to enhance these "transitional" areas near the water's edge.

Altering an existing pond to include bog areas is not all that difficult, providing the pond does not leak and you are willing to sacrifice a small amount of open water. For safety considerations, the rock walls should be mortared, making sure to include small drainage holes at the bottom. All plants require some drainage and water plants are not an exception, contrary to popular opinion. Gravel is installed along the shoreline and extends under water to prevent the soil from contaminating the water and also to alert people not to step in these areas. There will be a small amount of "wicking" action outside the actual water containment area, but this is an excellent spot to place the moisture-loving plants that are not true aquatics.

True aquatics are those plants that grow either completely submerged or that prefer one to eight inches of water over their root crowns. There are even a few plants such as the calla lily, Siberian iris, and *Lobelia cardinalis*, that are normally considered border plants but which thrive partially submerged. The ''dressing' of a shoreline by including such plants that rise smoothly from the water's surface is a very important part of achieving the optimum reflecting patterns in your pond.

Among the plants that emerge from deeper water. one of my favorites is the flowering rush (Butomus umbellatus) which has slender reed-like foliage to about four feet, and umbels of pink flowers held above the leaves on tall stems. The pickerel rush (Pontederia cordata) has bold clumps of spear-shaped leaves that produce spiked clusters of blue flowers over many weeks in midsummer. A tropical looking but completely hardy plant for the water's edge is the Japanese arrowhead (Sagittaria japonica), grown primarily for its lush arrow-shaped foliage. Another foliage plant is the zebra rush (Scirpus tabernaemontani var. zebrinus) that has unusual horizontal bands of clearly defined green and white all up and down its stems and makes a wonderful accent plant.

The true water iris is a welcome addition to any water scheme. The Japanese water iris (\*Iris laevigata), which is neither too vigorous nor too tall, has some very choice cultivars: 'Snowdrift' lives up to its name; 'Midnight' is a wonderful deep velvety blue; 'Colchesteri' has white blossoms that are heavily mottled purple blue; and Iris

laevigata var. variegata has clear green-and-white variegated leaves with lilac-tinted blue flowers. The American blue flag iris (Iris versicolor) has a number of cultivars, the best of which is probably 'Kermesina'. with rich reddish-purple blooms. For the most part, our naturalized yellow water iris (Iris pseudacorus) is generally too coarse and tall for the smaller pond. but if you have the room and want something out of the ordinary, there are the cultivars 'Bastardii'. with pale yellow blooms; 'Golden Queen'. with deep golden flowers: and 'Flore Plena'. which is an unusual doubleflowered form.

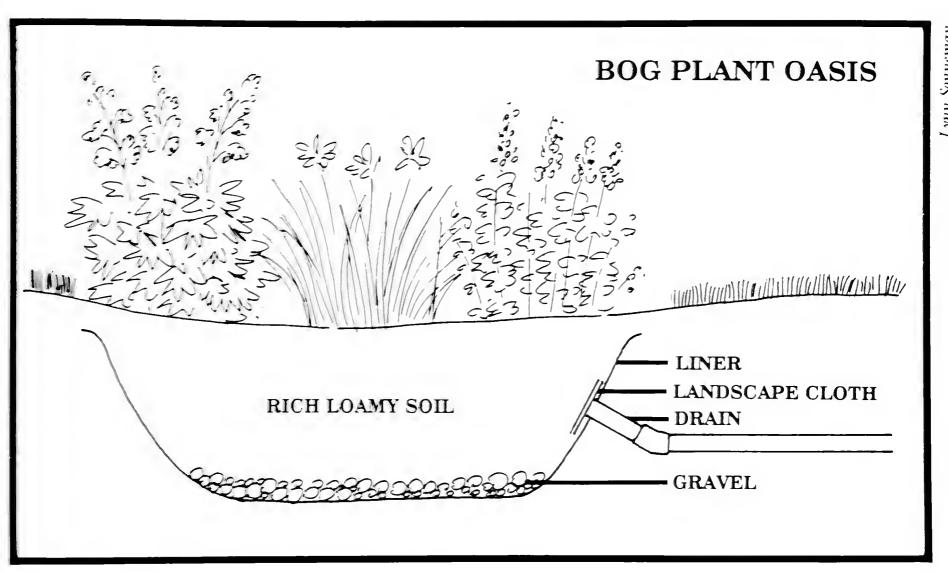
Our cool summers make it tricky to grow the water lotus (Nelumbo spp.) but it is well worth the effort, as it is an unrivaled water plant reaching five feet in height. Its blossoms have a haunting fragrance and can exceed six inches in diameter. They require several weeks of 80° F to flower; perhaps the best way of planting them would be in a very large tub on a sheltered southwest-facing patio. against a hot wall. Lotus may well be one of the few plants besides tomatoes that will grow in that location.

Smaller plants for masking pool edges, and which do well in moist soil in up to three inches of water. include the golden club (Orontium aquaticum), which has a silvery sheen on its sea-green leaves and unusual flowers that resemble white pokers dipped in yellow paint. The bog bean

(Menyanthes trifoliata) is an attractive rambling aquatic that grows out over the water surface with three-lobed leaves and delicate pale pink starshaped flowers. Water forget-me-not (Myosotis scorpioides) is only six inches tall and produces sky-blue flowers over a long period.

#### Drain Field or Bog Oasis?

Most gardeners here in the Northwest have an unfortunate tendency to eradicate every area of poor drainage on their properties by either building raised beds or by establishing elaborate drainage fields. In fact, water should be viewed as a resource that can be used to create gardens of extraordinary beauty. Should you be lucky enough to have such an area, you might want to build the sort of planting bed shown on the illustration to utilize all that excess water for the moisture-loving plants. If the area is large enough, you could grow the immense rhubarb-like Gunnera manicata or Filipendula rubra which tops out at eight feet with plume-like flowers similar to Astilbe. By containing the wet areas, vou also can create a natural barrier for the more aggressive but beautiful Lysimachia punctata with its bright yellow inflorescence all down the stems or Lysimachia clethroides, whose stems terminate in white cone-shaped spikes with distinctive crooks in them and upturned tips. The bronze-leafed Rodgersia (R. pinnata and R. podophylla) are un-



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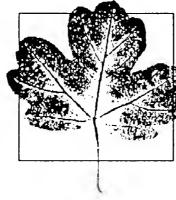
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der-used in most gardens and have magnificent foliage in contrast to the usual greens.

Another advantage of having a bog oasis is that there are many moisture-loving plants that bloom in mid to late summer, an otherwise dead time for most gardens. *Ligularia przewalskii*, the Monardas, *Polygonum bistorta*, and *Lobelia cardinalis*, to name a few, all benefit from being separated from the other border plants that require less water.

A semi-shaded moist area would be perfect for the hostas, astilbe, cimicifuga, false solomon seal, trillium, lamium, the beautiful willow gentian, and one of my favorites, Uvularia grandiflora with its nodding yellow bells. White skunk cabbage (Lysichiton camtschatcense) would look wonderful emerging in early spring surrounded by royal ferns (Osmunda regalis) or ostrich ferns (Matteuccia). Imagine in front of that arrangement a giant drift of any of the following primulas: Primula florindae (yellow), P. denticulata (lavender), or P. pulverulenta (pink). By varying the height of the soil within the bog area, you can combine plants that like really soggy soil with plants that do better in soil that is just evenly moist (and without continually having to turn on your sprinkler system).

#### Advantages for Water Lovers

A major benefit of having an aquatic feature in our urban environment is that it is an unquestionable magnet for wildlife. As we increasingly drain and pave over all our existing springs, the backyard ornamental pond may well become one pivotal factor in the survivability of wildlife. Especially with a pond, it is important to consider who or what else may be using it. The use of chemical pesticides, herbicides, algacides and moss killers have a detrimental—sometimes fatal—effect on birds, fish, newts, salamanders, raccoons, opossums, cats, dogs, and other animals. It may require you to alter your gardening style to avoid chemical control agents. An organic style will have unquestioned benefits for your garden's environment. The possibilities with water lovers are endless.

Lynn Sonneman has been a member of the Board of Directors of the Northwest Horticultural Society, the Rhododendron Species Foundation, and the Seattle Chinese Garden Society. She is co-owner of Sonneman Design, Inc., which specializes in the renovation, design and construction of water features.

#### Suggested Reading

Allison, James. 1991. Water in the Garden. Boston: Little, Brown, Co. (A Bullfinch Press Book).

#### Sources for Aquatics

Moorehaven Water Gardens 3006 York Road Everett, WA 98204

Chris Moore: (206) 743-6888





## New on the Shelves of the Elisabeth C. Miller Library

by Valerie Easton

Andrews and McMeel (publishers). *Garden Clippings: A Literary Bouquet*. 1st U.S. ed. Kansas City, MO, 1991. ISBN 0-8362-7987-5.

Bazin, Germain. *Paradeisos: The Art of the Garden*. 1st U.S. ed. Boston: Little, Brown, Co. 1991. ISBN 0-8212-1794-1.

Beston, Henry. Herbs and the Earth. Boston: David R. Godine Pub., Inc. 1990. ISBN 0-87923-827-5.

Bonta, Marcia. Women in the Field: America's Pioneering Women Naturalists. College Station, Texas: A & M University Press, 1991. ISBN 0-89096-489-0.

Falk, Donald A., and Kent E. Holsinger. *Genetics and Conservation of Rare Plants*. New York: Oxford University Press, 1991. ISBN 0-19506-429-1.

Hammer, Donald A. Creating Freshwater Wetlands. Boca Raton, FL: Lewis, 1992. ISBN 0-87371-445-8.

McLeod, Judyth A. *Lavender, Sweet Lavender*. Kenthurst (New South Wales): Kangaroo Press, 1989. ISBN 0-86417-139-0.

National Trust. National Trust Gardens Hand-book. London, 1991. ISBN 0-7078-0135-4.

Phillips, Roger, and Martyn Rix. *The Random House Book of Perennials*. New York: Random House, 1991. ISBN 0-679-73797-9.

Schenk, George. *The Complete Shade Gardener*. New ed. Boston: Houghton Mifflin, Co. 1991. ISBN 0-395-57426-9.

Turner, Nancy J., and Adam F. Szczawinski. *Common Poisonous Plants and Mushrooms of North America*. Portland, OR: Timber Press, 1991. ISBN 0-88192-179-3.

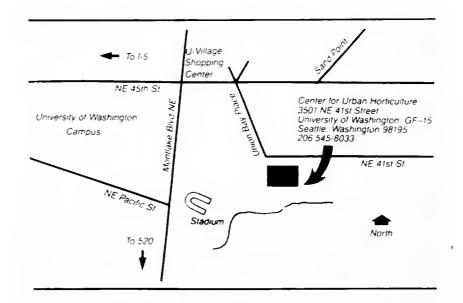
Verrier, Suzanne. Rosa Rugosa. Deer Park, WI:

Capability's Books, 1991. ISBN 0-913643-07-6.

Woodland, Dennis. *Reclaiming the Neglected Garden*. Wisley Handbook. London: Cassell, 1991. ISBN 0-304-31966-X.

Wunderlich, Eleanor B. *Botanical Illustration in Watercolor*. New York: Watson-Guptill Publications, 1991. ISBN 0-8230-0529-1.

All of these books can be found in the Elisabeth C. Miller Library, Center for Urban Horticulture, University of Washington.



The Elisabeth C. Miller Library is located at 3501 N.E. 41st, Seattle, WA. Hours are: Monday, 9 a.m. - 8 p.m.; Tuesday through Friday, 9 a.m. - 5 p.m. Each Monday, year round, from 4 p.m. - 8 p.m., the Miller Library participates in the Washington Garden Clinic at the Center for Urban Horticulture where the public can have plants identified. The Washington State University/King County Master Gardeners are there for consultation and specialists are available to find the library resources that you wish to consult.

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The nexus between books and gardeners goes back more than 400 years. Why are books important to gardeners? Why do gardeners and plantsmen need books?" asks Ian Mac-Phail, Curator of Rare Books at the Morton Arboretum, in his article entitled "The Garden and the Book" (*The Public Garden* 4:2, April 1989). His answer is complex and eloquent, but can be summed up in the limitations of human memory and the vast amount of available information.

Many of us were introduced to the joys of reading horticultural fiction in *The Secret Garden* by Frances Hodgson Burnett. First published in 1911, this timeless tale of mystery, healing, and growth is currently a hit Broadway musical. Surely nowhere has all the wonder and excitement of spring been evoked more beautifully than when an invalid boy sees it for the first time as it creeps over the moors and enters the secret garden.

And over walls and earth and trees and sweeping sprays and tendrils the fair green veil of tender little leaves had crept, and in the grass under the trees and the grey urns in the alcoves and here and there and everywhere, were touches or splashes of gold and purple and white and the trees were showing pink and snow above his head and there were fluttering of wings and faint sweet pipes and humming and scents and scents. And the sun fell warm upon his face....

Much good garden writing is personal and literary in quality, yet differs from fiction or poetry and goes far beyond garden reminiscences or descriptions. Many writers fall into this category, such as Eleanor Perenyi, Allen Lacy, Colette, and Vita Sackville-West. Two of my favorites may be less well known: Katharine S. White and May Sarton.

Katharine S. White was fiction editor at *The New Yorker* for thirty-four years, and after her retirement wrote garden pieces for the magazine that were later collected and published as *Onward and Upward in the Garden*.

Katharine was a lifelong gardener. Described by her husband E.B. White, "She simply accepted the act of gardening as the natural thing to be occupied with in one's spare time, no matter where one was or how deeply involved in other affairs." White's well-researched, opinionated, often humorous pieces cover a wide range of topics, from the men behind the nursery catalogs (whose writing she considered to be literature), to flower arranging ("Zen and all Zat"). As with all really good writing in this genre, as much is revealed about the author and her own garden as about the topics discussed.

If spring is most beautifully drawn in *The Secret Garden*, a story about children, then autumn is most potently evoked in E.B. White's description of his ill and elderly wife during her favorite task of planting bulbs. In the introduction to *Onward and Upward in the Garden*, he says:

As the years went by and age overtook her, there was something comical yet touching in her bedraggled appearance on this awesome occasion—the small, hunched-over figure, her studied absorption in the implausible notion that there would be yet another spring, oblivious to the ending of her own days, which she knew perfectly well was near at hand, sitting there with her detailed chart under those dark skies in the dying October, calmly plotting the resurrection.

May Sarton, poet and novelist, became a gardener in middle age when she bought her first house, located on the village green of Nelson, a tiny town in New Hampshire. She has written a series of journals spanning forty years, and her discovery of gardening and its joys is described in Plant Dreaming Deep, her first journal of her years in Nelson. Influenced by an English mother, a trip to Japan, and the New England terrain, May Sarton pushed the wilderness back bit by bit and created herbaceous borders in which she took great joy, despite the constant battles with weather and woodchucks. Throughout Plant Dreaming Deep and every subsequent journal, May Sarton writes of the daily occurrences in her garden and her pleasure in the natural world. She says, "Gardening gives one back a sense of proportion about everything except itself," and:

Is there a joy except gardening that asks so much, and gives so much? I know of no other except, perhaps, the writing of a poem. They are much alike, even in the amount of waste that has to be accepted for the sake of the

rare, chancy joy when all goes well. And they are alike in that both are passions that bring renewal with them. But there is a difference: poetry is for all ages; gardening is one of the late joys, for youth is too impatient, too self-absorbed, and usually not rooted deeply enough to create a garden. Gardening is one of the rewards of middle age, when one is ready for an impersonal passion, a passion that demands patience, acute awareness of a world beside oneself, and the power to keep on growing through all the times of drought, through the cold snows, toward those moments of pure joy when all failures are forgotten and the plum tree flowers!

Books are important to gardeners not only for verifying nomenclature, confirming pathogens, or researching cultural requirements, but also for pleasure reading. In addition to the horticultural encyclopedias and taxonomy texts, we need books that bring insight, history, and inspiration to our favorite subject. We're lucky that many of the best writers have been and are garden lovers and that literature is rich with the metaphors and imagery of the garden, as well as good fictional plots centering on gardeners and their plants.

#### More Horticultural Literature

Arkell, Reginald. *Old Herbaceous*. New York: Harcourt Brace, 1951. Delightful descriptions and characterizations enliven this tale of an old-time gardener in an English countryside garden and his love for his plants. Considered an English gardening classic, it is now available in paperback.

Bellow, Saul. *More Die of Heartbreak*. New York: William Morrow, 1987. The life of an eminent botanist, revered by his fellow specialists for his work on Arctic lichens, changes dramatically when he acquires an avaricious young wife.

Colette. For a Flower Album. New York: McKay & Co., 1960. Thoughts on nature with lovely illustrations.

Godden, Jan. In Her Garden. New York: Knopf, 1981. An English gothic suspense novel, set in a formal English country garden.

Godden, Rumer. *An Episode of Sparrows*. New York: Viking, 1955. The garden that two poor London children make from a packet of cornflower seeds changes people's lives in a seedy London neighborhood.

Kosinski, Jerzy. Being There. New York: Harcourt Brace, 1970. Chance the Gardener philosophically compares life to his isolated experiences in a garden, with surprising results.

Lacy, Allen. The Gardener's Eye and Other Es-

says. New York: The Atlantic Monthly Press, 1991. In his third and most current collection of essays, Allen Lacy comments on horticultural people and places.

Sherman, D.R. Old Mali and the Boy. New York: Little, Brown, Co. 1964. A timeless story of a boy taught by a wise and humble gardener about life and courage. Written by a young Rhodesian man.

Sherwood, John. *Green Trigger Finger*. Charles Scribner's Sons, 1984.

A Botanist at Bay. Scribner's, 1985.

The Mantrap Garden. Scribner's, 1986.

Flowers of Evil. Scribner's, 1987.

A Bouquet of Thorns. Scribner's, 1988.

Menacing Groves. MacMillan Publishing Co., Inc., 1989.

The Sunflower Plot. MacMillan Publishing Co., Inc., 1991. Newly widowed Celia Grant starts her own nursery and gardening business, only to be distracted by a body turning up in a newly dug planting bed. Her detective skills are called upon again during a trip to New Zealand and, in another adventure, to solve a murder set in a dilapidated estate garden designed by Gertrude Jekyll.

Smallwood and Stewart, publishers. *Garden Clippings: A Literary Bouquet*. New York: Smallwood and Stewart, 1991. Beautiful photographs and binding enhance this small collection of quotations about gardens from garden writers such as Celia Thaxter and Gertrude Jekyll, and from such poets and novelists as Shakespeare, Lord Byron, Lord Tennyson, and Nathaniel Hawthorne.

To locate collections that include the following poems, see *Granger's Index to Poetry*, 8th ed.

Allen, Alice E. "My Mother's Garden."

Carman, Bliss. "An Autumn Garden."

DeBevoise, Arlene. "Two Gardens."

De la Mare, Walter. "The Sunken Garden." Kipling, Rudyard. "The Glory of the Garden."

Moss, Howard. "The Roof Garden."

Stevenson, Robert Louis. "The Gardener."

Waggoner, David. "Elegy While Pruning Roses" and "Falling Asleep in a Garden."

Call the Elisabeth C. Miller Library, (206) 543-8616, for a more complete booklist. Write to me with your favorites to add to the list.

Valerie Easton, a librarian at the Elisabeth C. Miller Library, University of Washington, is the book review editor of *The Washington Park Arboretum Bulletin*.

### Book Reviews

Complete Guide to Landscape Design, Renovation, and Maintenance. Cass Turnbull. White Hall, Virginia, Betterway Publications, 1992. ISBN 1-55870-208-3. \$14.95, paper.

he well-read, seasoned gardener may not glean a lot of new information from this book, but Complete Guide to Landscape Design, Renovation, and Maintenance seems ideal for the average homeowner who often feels overwhelmed by the yard. It is divided into four parts: pruning, renovating the overgrown yard, designing and installing a new landscape, and maintenance. The extensive appendices contain many plant lists, including "Easiest Plants to Keep at a Mature Height of 5 Feet or Less," "Plants for Skinny Places," and "Tough Guys." Though written for a national audience, the author's choice of plants reveals her western Washington roots. For example, rockrose and Escallonia may survive in Seattle, but they are definitely not hardy in most parts of the country.

A refreshing aspect of this book is that it often takes an unconventional approach to the subjects covered. For example, Cass Turnbull has her own method of teaching pruning. She divides shrubs into three broad groups: cane-growers, mounds, and tree-like. Says Turnbull, "This classification is convenient, not scientific, but will help you to decide how to prune your plants by learning to read their habits." I encounter many people who find conventional pruning books difficult to understand, so I applaud her for trying a new approach.

The title of this book seemed overambitious when I first saw it, especially for a mere 192 pages. But the author actually does cover all the bases quite well and in a manner that combines passion, opinion, practical experience, science, and humor. She often makes irreverent but instructive statements, such as "Gardening is an unnatural act." But the result is more than just another dry, how-to book; it is enjoyable reading. I recommend it to the many reluctant gardeners I encounter who are looking for a good, practical book on how to manage their home landscapes.—

Reviewed by Van M. Bobbitt

Van M. Bobbitt is Master Gardener/Urban Horticultural Coordinator, Washington State University Cooperative Extension, Puyallup, Washington.

The Butterfly Garden: Creating Beautiful Gardens to Attract Butterflies. Jerry Sedenko. New York, Villard Books, 1991. ISBN 0-394-58982-3. \$25.00, hardback.

Seattleite Jerry Sedenko is a very knowledgeable and gifted plantsperson, gardener, and garden writer with a national reputation. He also is keenly interested in butterflies. These qualities are combined in his delightful new book.

The Butterfly Garden is pleasant, easy reading with many beautiful photographs of butterflies and flowers. It tells us about butterflies first, then about the flowers and plants that will attract them to our gardens, and finishes with sample garden designs. These areas are covered in a concise manner without sacrificing the quality of the information provided. It would be enjoyable reading for someone with a general interest in butterflies as well as anyone wanting to create a butterfly-attracting garden.

The author's writing skill is evident throughout the book, but particularly noticeable when he describes the life cycle of a butterfly. He captures our interest by describing each of the four developmental stages with unusual clarity and detail. I felt like he was looking through a magnifying glass and relaying what he saw. The fascinating description is matched with some excellent photographs.

A limited, but well-selected, group of butterfly-attracting plants is presented. Most have fragrance as well as wonderful colors to recommend them, and all are good, solid performers in the garden. The text notes which butterflies find each plant especially attractive. This section is particularly useful for someone wishing to add a few butterfly-attracting plants to the garden while matching an existing color scheme, or adding plants attractive to a specific butterfly. The final chapter deals with designing a butterfly garden and gives two designs to illustrate how the plants could be combined to create a beautiful garden. Either design would produce a garden with softness and charm.

Happily, the preferred environment for butterflies is also a fine outdoor environment for people. The conditions they prefer are shelter from strong winds, a sunny open space, and lots of flowers. It is hard to resist the appearance of such a garden space.—Reviewed by Mary Booth

Mary Booth is a landscape architect and is active in The Arboretum Foundation. She contributed to a book on butterfly gardening created by The Xerces Society and The Smithsonian Institution.

## Beautiful Losers

#### by Daniel J. Hinkley

Many tender species aren't meant to be grown in the Puget Sound region. Yet heartache leads to delight when we successfully harden wonderful plants for use in the Northwest landscape.



Michelia doltsopa

The tendency to live beyond one's financial means finds a parallel botanically with the horticultural tendency to push the limits of plant hardiness. We may wonder why, with so many good garden plants at our shovel-tips, we wish to grow those that live on the fringes of the annually varying thermal boundary that separates the thriving garden from the compost pile.

Our especially coveted plants may be lost during a single winter or they may suffer a lingering demise over many years. Often we coddle these tender species in hopes of enjoying their blossoms, even though they seldom are produced in any but the mildest of years. We can feign ignorance of their frailty in our own climate while in

our heart of hearts knowing that chances are slim that they will thrive.

#### Pushing Hardiness

The Northwest's cool summer is followed by a mild autumn that seldom prepares the uninitiated for the frigid assaults that come as early as late November. At that time, it is the lack of hardening that most often is responsible for the losses of marginally hardy plants. I have been amazed, for example, to see many less-than-hardy plants thrive in winter-cold Portland, Oregon, when they will not perform for us in Seattle. It is Portland's higher summer temperatures, however, that cause growth to cease in these plants and the tissues to be toughened for the extremes of winter temperatures. This ripening of the wood also promotes flowering the next year. When new wood is cut back by Puget Sound's early freezes, it is often just that wood that bears flower buds. Although the actual life of these plants may remain intact, blossom and fruit-often a specimen's reason for inclusion in our gardens—are freeze-dried.

#### Some Tried-and-True Failures

My tried-and-true failures are discussed below, though by no means am I attempting to discourage their use. The following selections are spectacular when the climatic cards fall in place and their beauty is brought to fruition. Consider it gravy if, indeed, they do flower, although they can be enjoyed for foliage alone. Such is the case this year, following one of the mildest winters on record (1991-1992), which gardeners will reference nostalgically in years to come. Hopes for developing hardier varieties are with those of you who are interested in giving these plants a try.

Emmenopterys henryi, rare in cultivation, is

#### Glossary

**Anthers** contain pollen and are usually borne on a stalk.

**Bract** is a leaf-like or petal-like organ beneath the true flower.

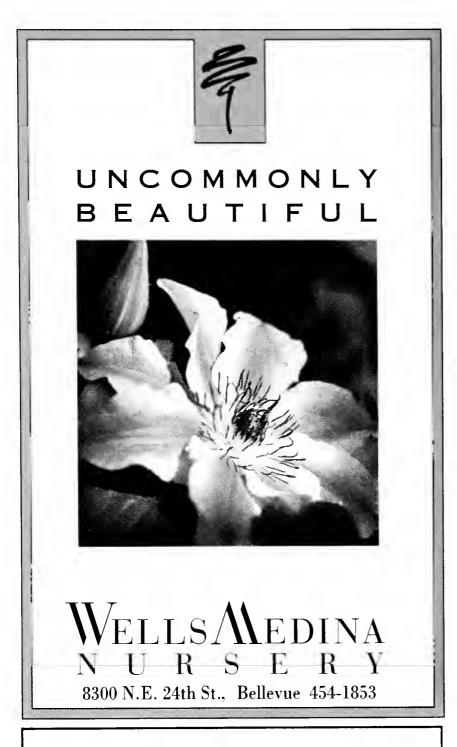
**Glaucous** is the blue or white coloration provided by a thin coating of wax found on leaves or stems.

**Inflorescence** is the flower cluster of a plant. **Pistil** is the female organ of a flower.

**Stipule** is one of a pair of basal appendages found on many leaves [Hitchcock].

To **sucker** is to send out shoots from the root or lower part of the stem of the plant.

**Tender** plants have low tolerance of cold temperatures.





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considered one of the most beautiful of the deciduous broad-leaved trees in the forests of China. The flowers themselves are actually quite small, yet the inflorescences are surrounded by large whitish-pink bracts. The leaves are bold and blushed with purple; the winter twigs and buds are bright red. Like so many special flowering trees, Emmenopterys is tender for us, but often will re-sprout from the base if winter damaged. The largest specimen I have observed, 20 feet tall, is in a private garden in Edmonds, Washington; it was killed to the ground during the harsh 1990-1991 winter. Even in good conditions it takes many years for Emmenopterys to first offer its spectacular blooms; the first specimen to bloom outside of China was one of about sixty years old that bloomed in Italy in 1977.

A close relative of *Emmenopterys* is *Pinckneya pubens*, which is native to the coast of the eastern United States, from southern Virginia to Florida. *Pinckneya* also is a spectacular blossoming plant that grows as a large shrub in wet sites. I have observed it in blossom in its native haunts and can only hope that the puny specimen in my garden may some day flower. The terminal flowers are subtended by huge bracts of pink, not at all unlike an enormous poinsettia. Though it seems to be fully hardy above ground like *Emmenopterys*, it lusts for the hot sultry days of its origin and pokes about in our climate with a resentful drawl. I will not soon be composing a letter home exclaiming about its beauty.

Such is also the case with many of the plants native to the florally fantastic southeastern United States. *Gordonia lasianthus* is an evergreen member of the Camellia family with close ties to \**Franklinia alatamaha*. It relishes the heat it receives in summer-warm areas and seemingly ignores the colder winter temperatures that are often interrelated climatically. *Gordonia* may form a large shrub or small tree in this area; though I have seen a specimen in blossom in a sheltered position near Seattle's Madison Park beach, the large single white blossoms produced in late spring or early summer are a rare treat in our climate.

Also lovely in flower and fragrance are species of a genus related to *Magnolia* known as *Michelia*. \**Michelia compressa*, a very rare species, has survived in the Washington Park Arboretum collections for three decades though the choicest species remains the penultimate challenge for the Northwest horticulturist: *Michelia* 

Crinodendron hookerianum (r), Drimys winteri (below), and Azara microphylla (bottom).







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figo is an evergreen shrub that is remarkable in fragrance rather than in beauty of the flowers. A single flower, small and white, will fill a greenhouse with its heavy fruitiness hinting of banana. Less fragrant, but more spectacular in blossom, is M. doltsopa. I have successfully flowered both species in my unheated greenhouse, yet their introduction to the garden has been a series of expensive disappointments. I have returned to growing these as subjects for the cool greenhouse, putting them to pasture during the summer months.

#### Southern Discomfort

The southern hemisphere serves up a virtual feast of plants that we in the Northwest can grow and enjoy, yet it tempts us with a legion of others that are unlikely candidates for our gardens, barring major climate change. Azara microphylla is an evergreen large shrub or small tree that has survived in Seattle for many years. Though interesting in leaf texture and bearing tiny fragrant flowers in late winter, the overall form and effect tends to be scraggly when mature. The same is not true for a different Azara species growing in my garden. I first discovered \*Azara lanceolata growing in the lath house of the Arboretum and marveled at its striking deeply serrated lanceshaped leaves, each subtended by a rounded leaflike stipule. Unlike the insignificant flowers of A. microphylla, the flowers of A. lanceolata are made showy by clusters of distinctive golden-yellow anthers. In six years, I have had this species blossom twice for me and retreat to ground level three times. Yet I will continue to play the game of retreat and receive with it.

Walking through my garden this spring, I marvel at the flowering of many plants that I have known up to now only in foliage. One is *Drimys winteri* var. *chilensis*, an evergreen species from South America. Even if it never flowers, the foliage is remarkable enough to grow—oval medium green leaves on top with a brilliant white glaucous coating below.

Unfortunately, *Drimys* finally agrees to cease languishing and pick up the pace about the time we contemplate sanding and oiling the tool handles and hanging them for the winter. New growth is often cut back and the flowers are frequently lost. Much to my delight, however, both specimens are producing copiously now with clusters of waxy creamy-white blossoms. Close inspection of the flowers, with their spirally arranged sexual parts and many pistils, exemplifies this species' relationship to primitive plant groups.

Crinodendron patagua and C. hookerianum are native to areas of Chile shared in part by Drimys (see Hamilton and Reichard 1988). Both are remarkable species in blossom. Crinodendron patagua, probably the more tender of the two, has flowered and fruited frequently along the south wall of the maintenance building at the Hiram M. Chittenden Locks in Ballard for many years. When I was in the San Francisco area in 1991, I saw an exemplary specimen, covered with large drooping bells of white. Upon my return to Seattle, I was not sure if I should continue showing my friends and students the haggard-looking specimen at the locks or pray for its quick and painless death. Since then I have relinquished my judgmental attitude and marvel in its tenacity. I collect and grow the seed of this individual with the hope that one of the seedlings has potential for greater hardiness.

Crinodendron hookerianum is oceans apart in appearance from its white-flowered cousin. It sports huge red drooping bells borne at the end of a very long pedicel, reminding me of an Enkianthus on steroids. Unfortunately, however, these flowers arise from buds that are formed during the previous autumn and are openly exposed to all that our winters can offer. My five foot tall specimen was burnt to ground level during the winter of 1990-1991, and though I was not surprised to have it sucker quickly from the base, it probably will continue to be one of those garden makers that becomes progressively smaller as the years continue.

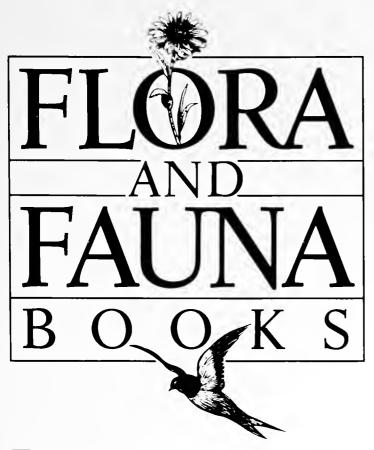
#### A Word to the Unwise

The gambling gardener ultimately expands the range of plant material for those less adventure-some. Without occasional losses and delightful successes, we fail to realize our limits or become aware of the hardiness potential of individuals within any plant population. It is through such trials that we learn what truly has value as a garden plant. The many beautiful losers we attempt in the Northwest are not to be avoided but simply manured with realistic expectations.

Daniel J. Hinkley is an instructor of horticulture at Edmonds Community College, north of Seattle. Dan has rejoined the *Washington Park Arboretum Bulletin* board.

#### For Further Reading

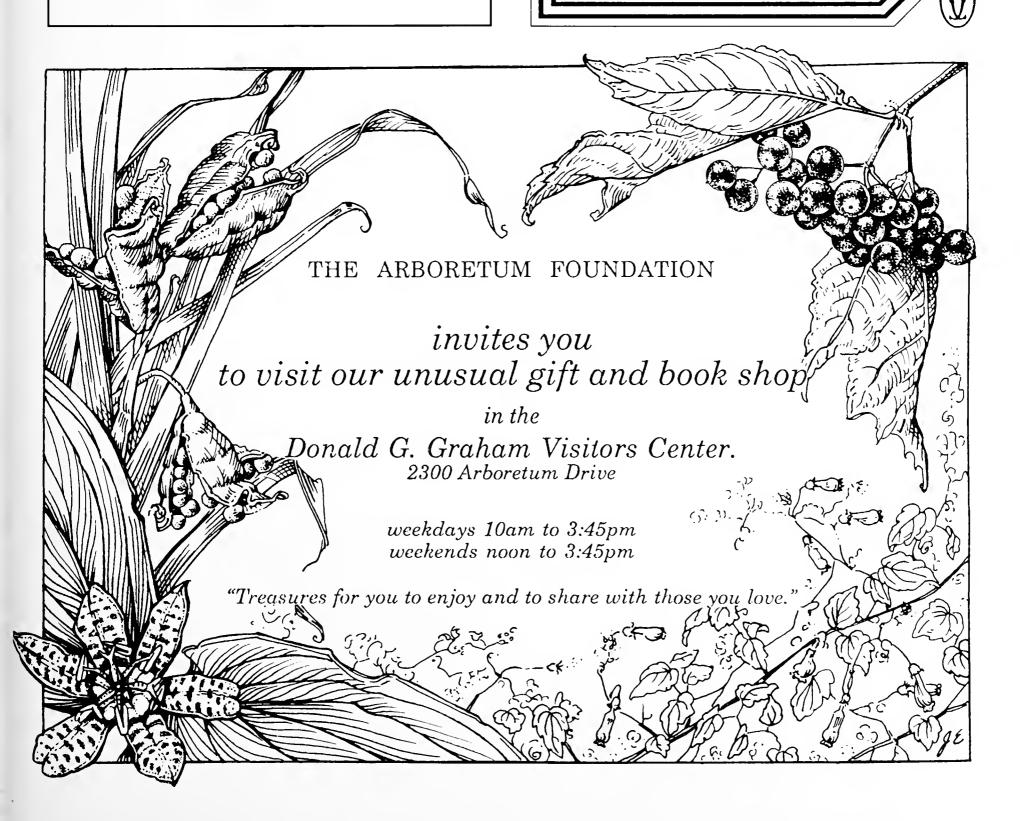
Hamilton, Clement W., and Sarah Hayden Reichard. 1988. "Plants of Winter-Rain Regions IV: Plant Exploring in Southern Chile." The Washington Park Arboretum Bulletin 51:3.

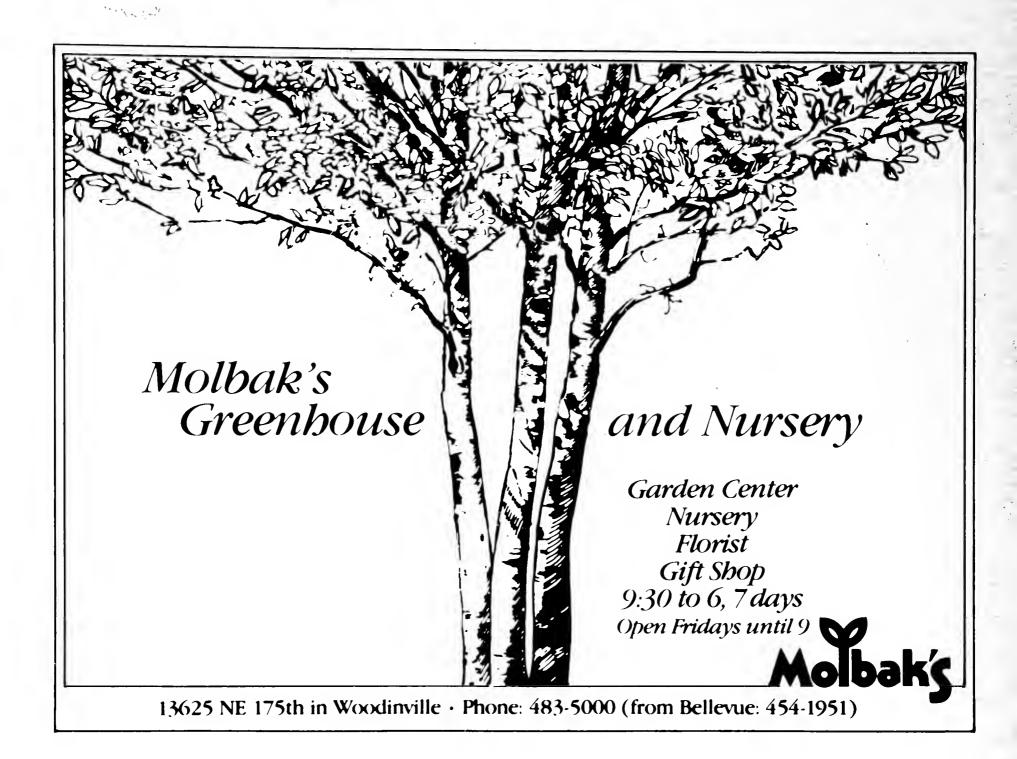


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